

# Naming Compounds

## Type I Compounds:

Ionic Compounds (\_\_\_\_\_)

H	Metals, Nonmetals, and Metalloids																He	
Li	Be											B	C	N	O	F	Ne	metals
Na	Mg											Al	Si	P	S	Cl	Ar	
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	metalloids
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	nonmetals
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Uub	—	Uuq	—	—	—	—	
		Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu			
		Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr			

\*\*\* The positive thing (\_\_\_\_\_) is first and the negative thing (\_\_\_\_\_) is second

\*\*\* The name of the cation is the same name as the element

Example:

\*\*\* The anion is named by taking the root name of the element and adding the suffix “ -ide ”

Example:

Practice:

Type II Compounds:

Ionic Compounds that have cations with multiple charges  
(\_\_\_\_\_)

\*\*\* Follow the same rules as Type I compounds

\*\*\* You must include a roman numeral with the cation

Example:

Practice:

Covalent Compounds:

(non-metal to non-metal)

\*\*\* Name the first element first, using its full name

\*\*\* The second element is named like an anion (“-ide”)

\*\*\* Prefixes are used to show the number of each element

\*\*\* Mono is not used to name the first element

Common Prefixes Use in  
Chemical Nomenclature

Prefix	Meaning
Mono-	1
Di-	2
Tri	3
Tetra-	4
Penta-	5
Hexa-	6
Hepta-	7
Octa-	8
Nona-	9
Deca-	10

Practice:

Compounds with polyatomic ions:

(Similar rules as Type I compounds)

\*\*\* Cation goes first, anion goes second

\*\*\* Wherever the polyatomic ion is, just write its name

Practice:

Acids:

2 different sets of rules

Acids that \_\_\_\_\_ have oxygen in the anion

\*\*\* Do not name the  $H^+$  cation

\*\*\* Start out with the prefix “hydro- “

\*\*\* Then use the root name of the anion

\*\*\* Then use the suffix “-ic “

\*\*\* Lastly, include the word “acid”

Practice:

Acids that \_\_\_\_\_ have oxygen in the anion

(Usually have polyatomic ions)

\*\*\* Do not name the  $\text{H}^+$  cation

\*\*\* Use the root name of the polyatomic ion

\*\*\* Then use the proper suffix

Rules:

\*\*\* Lastly, include the word “acid”

Practice: